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FILE 'MEDLINE, SCISEARCH, CAPLUS, BIOSIS' ENTERED AT 15:50:52 ON 09 FEB 2006

L1 176779 S DENDRITIC
L2 194 S PDC2
L3 77 S L1 AND L2
L4 9 S L3 AND (HIV? OR AIDS)
L5 3 DUP REM L4 (6 DUPLICATES REMOVED)
L6 3 SORT L5 PY
L7 40 S L2 AND (CD4? OR CD3? OR CD11C?)
L8 18 DUP REM L7 (22 DUPLICATES REMOVED)
L9 2 S L8 AND PY<=1999
E SHODELL MICHAEL?/AU
L10 16 S E2
E SHIEGAL FREDERICK?/AU
E SIEGAL FREDERICK?/AU
L11 42 S E1
L12 1 S E2
L13 43 S L11 OR L12
L14 44 S L10 OR L13
L15 29 DUP REM L14 (15 DUPLICATES REMOVED)
L16 0 S L15 AND L2
L17 7 S L15 AND L1
L18 5 S L17 AND (HIV? OR AIDS)
L19 5 SORT L18 PY

=> d ti so au ab l19 3-5

L19 ANSWER 3 OF 5 MEDLINE on STN
TI **Dendritic** cell numbers in the blood of **HIV-1** infected patients before and after changes in antiretroviral therapy.
SO Journal of clinical immunology, (2004 Nov) 24 (6) 647-52.
Journal code: 8102137. ISSN: 0271-9142.
AU Finke Jennifer S; **Shodell Michael**; Shah Kokila; **Siegal Frederick P**; Steinman Ralph M
AB Antigen presenting **dendritic** cells (DCs) can serve as sites for **HIV** replication and as vehicles for transmission of the virus to T cells. It is known that the numbers of DCs in blood is reduced during **HIV-1** infection. Here we monitored the two major subsets of blood DCs in 12 individuals undergoing a change, primarily initiation, of highly active antiretroviral therapy. The numbers of plasmacytoid DCs were reliably higher on therapy, although in the 1-3 month interval we followed, these numbers did not return to those seen in **HIV** uninfected controls. An increase in plasmacytoid DCs was accompanied by an increase in IFN-alpha production in response to a standard challenge in culture with UV-inactivated herpes simplex virus. The levels of myeloid DCs also demonstrated an increase while on HAART, and these numbers become comparable to the **HIV** uninfected controls. The numbers of plasmacytoid and myeloid DCs varied inversely with the levels of plasma **HIV** viremia. These longitudinal studies extend prior work showing that virus infection with **HIV** leads to a decrease in the number of **dendritic** cells in blood, and that this can be reversed at least in part by therapy.

L19 ANSWER 4 OF 5 MEDLINE on STN
TI **HIV-1**-infected monocyte-derived **dendritic** cells do not undergo maturation but can elicit IL-10 production and T cell regulation.
SO Proceedings of the National Academy of Sciences of the United States of America, (2004 May 18) 101 (20) 7669-74. Electronic Publication: 2004-05-05.
Journal code: 7505876. ISSN: 0027-8424.

AU Granelli-Piperno Angela; Golebiowska Angelika; Trumpfheller Christine;
Siegall Frederick P; Steinman Ralph M
AB Dendritic cells (DCs) undergo maturation during virus infection
and thereby become potent stimulators of cell-mediated immunity.
HIV-1 replicates in immature DCs, but we now find that infection
is not accompanied by many components of maturation in either infected
cells or uninfected bystanders. The infected cultures do not develop
potent stimulating activity for the mixed leukocyte reaction (MLR), and
the DCs producing HIV-1 gag p24 do not express CD83 and
DC-lysosome-associated membrane protein maturation markers. If different
maturation stimuli are applied to DCs infected with HIV-1, the
infected cells selectively fail to mature. When DCs from HIV
-1-infected patients are infected and cultured with autologous T cells,
IL-10 was produced in 6 of 10 patients. These DC-T cell cocultures could
suppress another immune response, the MLR. The regulation was partially
IL-10-dependent and correlated in extent with the level of IL-10 produced.
Suppressor cells only developed from infected patients, rather than
healthy controls, and the DCs had to be exposed to live virus rather than
HIV-1 gag peptides or protein. These results indicate that
HIV-1-infected DCs have two previously unrecognized means to evade
immune responses: maturation can be blocked reducing the efficacy of
antigen presentation from infected cells, and T cell-dependent suppression
can be induced.

L19 ANSWER 5 OF 5 MEDLINE on STN

TI CD8+ T cells from most HIV-1-infected patients, even when
challenged with mature dendritic cells, lack functional recall
memory to HIV gag but not other viruses.

SO European journal of immunology, (2005 Jan) 35 (1) 159-70.
Journal code: 1273201. ISSN: 0014-2980.

AU Arrode Geraldine; Finke Jennifer S; Zebroski Henry; Siegal Frederick
P; Steinman Ralph M

AB Chronically HIV-1-infected patients fail to contain their
viremia despite high frequencies of HIV-1-specific,
IFN-gamma-producing CD8(+) T cells. However, these cells are known to
exhibit both phenotypic and functional defects. We tested if mature
dendritic cells (DC) could correct defective HIV-1
gag-specific T cell responses and if responses to other viral antigens
were comparably affected. The circulating gag-specific CD8(+) T cells in
fresh blood reliably produced IFN-gamma but lacked IL-2 and high perforin
levels and failed to expand significantly during culture with mature DC
presenting HIV-1 gag peptides. In contrast, CD8(+) T cells from
long-term nonprogressors contained gag-specific IFN-gamma and IL-2 double
producers, and the numbers of IFN-gamma producers expanded approximately
15-fold during culture with DC. DC from chronically infected patients
could expand IFN-gamma- and IL-2-producing cells specific for influenza,
cytomegalovirus and Epstein Barr virus, and the expansions were comparable
to those in healthy donors. When the proliferative capacity of CD8(+) T
cells from progressor patients was assessed by CFSE dilution,
proliferation to other viral antigens was more vigorous than to
HIV-1 gag. Therefore, monocyte-derived DC from HIV
patients present viral antigens effectively, but there is a selective
inability to expand CD8(+) IFN-gamma-producing and IFN-gamma and IL-2
double-producing T cells when challenged with HIV-1 gag.

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L1	0	10/067146	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/02/09 16:34
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L3	0	Siegal NEAR frederick	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/02/09 16:35
L4	0	Shodell NEAR michael	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/02/09 16:35
L5	140	pd2	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/02/09 16:44
L6	666	interferon producing cell	USPAT; DERWENT	SAME	OFF	2006/02/09 16:38
L7	11047	dendritic cell	US-PGPUB; USPAT; EPO; JPO; DERWENT	NEAR	ON	2006/02/09 16:46
L8	823791	HIv aids	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/02/09 16:39
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L12	7	pd2.clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/02/09 16:42
L13	7339	I7 and I8	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/02/09 16:49
L14	152	(I7 and I8).clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/02/09 16:43

L15	2	pdc2 CD4\$2 cd3\$2 cd11c\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	SAME	ON	2006/02/09 16:45
L16	87	(Hiv OR aids) CD4\$2 cd3\$2 cd11c\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	SAME	ON	2006/02/09 16:47
L18	17	I16 AND dendritic cell	US-PGPUB; USPAT; EPO; JPO; DERWENT	NEAR	ON	2006/02/09 16:46
L20	14	(Hiv OR aids) CD4\$2 cd3\$2 cd11c\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT	WITH	ON	2006/02/09 16:57
L21	152	(I7 and I8).clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/02/09 16:55
L22	1	I21 and pdc2	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/02/09 16:56
L23	169	precursor type dendritic cells	US-PGPUB; USPAT; EPO; JPO; DERWENT	WITH	ON	2006/02/09 16:57
L24	138	I23 and (aids or hiv)	US-PGPUB; USPAT; EPO; JPO; DERWENT	WITH	ON	2006/02/09 16:57
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☐ 1: Schmidt B, Fujimura SH, Martin JN, Levy JA.

Related Articles, Links

Variations in Plasmacytoid Dendritic Cell (PDC) and Myeloid Dendritic Cell (MDC) Levels in HIV-Infected Subjects on and off Antiretroviral Therapy.

J Clin Immunol. 2006 Jan;26(1):55-64.
PMID: 16418803 [PubMed - in process]

☐ 2: Smed-Sorensen A, Lore K, Vasudevan J, Louder MK, Andersson J, Mascola JR, Spetz AL, Koup RA.

Related Articles, Links

Differential susceptibility to human immunodeficiency virus type 1 infection of myeloid and plasmacytoid dendritic cells.

J Virol. 2005 Jul;79(14):8861-9.
PMID: 15994779 [PubMed - indexed for MEDLINE]

☐ 3: Finke JS, Shodell M, Shah K, Siegal FP, Steinman RM.

Related Articles, Links

Dendritic cell numbers in the blood of HIV-1 infected patients before and after changes in antiretroviral therapy.

J Clin Immunol. 2004 Nov;24(6):647-52.
PMID: 15622449 [PubMed - indexed for MEDLINE]

☐ 4: Siegal F.

Related Articles, Links

Interferon-producing plasmacytoid dendritic cells and the pathogenesis of AIDS.

Res Initiat Treat Action. 2003 Spring;8(2):10-3.
PMID: 12845770 [PubMed - indexed for MEDLINE]

☐ 5: Yang OO, Boscardin WJ, Matud J, Hausner MA, Hultin LE, Hultin PM, Shih R, Ferbas J, Siegal FP, Shodell M, Shearer GM, Grene E, Carrington M, O'Brien S, Price CB, Detels R, Jamieson BD, Giorgi JV.


Related Articles, Links

Immunologic profile of highly exposed yet HIV type 1-seronegative men.


AIDS Res Hum Retroviruses. 2002 Sep 20;18(14):1051-65.
PMID: 12396457 [PubMed - indexed for MEDLINE]

☐ 6: Chehimi J, Campbell DE, Azzoni L, Bacheller D, Papasavvas E, Jerandi G, Mounzer K, Kostman J, Trinchieri G, Montaner LJ.


Related Articles, Links

 Persistent decreases in blood plasmacytoid dendritic cell number and function despite effective highly active antiretroviral therapy and increased blood myeloid dendritic cells in HIV-infected individuals.
J Immunol. 2002 May 1;168(9):4796-801.
PMID: 11971031 [PubMed - indexed for MEDLINE]


☐ 7: [Feldman S, Stein D, Amrute S, Denny T, Garcia Z, Kloser P, Sun Y, Megjugorac N, Fitzgerald-Bocarsly P.](#) [Related Articles, Links](#)

 Decreased interferon-alpha production in HIV-infected patients correlates with numerical and functional deficiencies in circulating type 2 dendritic cell precursors.
Clin Immunol. 2001 Nov;101(2):201-10.
PMID: 11683579 [PubMed - indexed for MEDLINE]


☐ 8: [Siegal FP, Fitzgerald-Bocarsly P, Holland BK, Shodell M.](#) [Related Articles, Links](#)

 Interferon-alpha generation and immune reconstitution during antiretroviral therapy for human immunodeficiency virus infection.
AIDS. 2001 Sep 7;15(13):1603-12.
PMID: 11546934 [PubMed - indexed for MEDLINE]


☐ 9: [Shodell M, Siegal FP.](#) [Related Articles, Links](#)

 Corticosteroids depress IFN-alpha-producing plasmacytoid dendritic cells in human blood.
J Allergy Clin Immunol. 2001 Sep;108(3):446-8.
PMID: 11544466 [PubMed - indexed for MEDLINE]

☐ 10: [Siegal FP, Kadowaki N, Shodell M, Fitzgerald-Bocarsly PA, Shah K, Ho S, Antonenko S, Liu YJ.](#) [Related Articles, Links](#)

 The nature of the principal type 1 interferon-producing cells in human blood.
Science. 1999 Jun 11;284(5421):1835-7.
PMID: 10364556 [PubMed - indexed for MEDLINE]

☐ 11: [Sapp M, Engelmayer J, Larsson M, Granelli-Piperno A, Steinman R, Bhardwaj N.](#) [Related Articles, Links](#)

 Dendritic cells generated from blood monocytes of HIV-1 patients are not infected and act as competent antigen presenting cells eliciting potent T-cell responses.
Immunol Lett. 1999 Mar;66(1-3):121-8.
PMID: 10203044 [PubMed - indexed for MEDLINE]

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